USER'S MANUAL

&

COOK BOOK

Tulsi Solar Oven
&
Tulsi Hybrid Solar Oven

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Manufacturers Note.

Dear Customer,

Congratulations, on becoming the owner of new technological solar cooking marvel, which will open a whole new world of safer and healthier life support for your family and the world. This small portable kitchen is powered by the Sun, use any where, no fire, no stirring required, no over flowing, no chance of over cooking or food burn; simply put food in the Oven and take-out piping hot food, as and when you require, may be terrace, camping or travel.

Tulsi Solar Oven not merely saves money on fuel, but cooks highly nutritious and tasty food for family. It saves lot of time to attend to other chores and saves money, energy and pollution. **It keeps the family away from immense health hazards, which are inherent in conventional methods of cooking.**

The information contained in this User's Guide is given for guidance on how to cook in Tulsi Solar Oven with few commonly used recipes for cooking Indian, continental and other dishes; visit **http://www.solarcooking.org/recipes.** We are confident that after using it for few days you will master its use, improve family health and bring peace in the modern restless life style.

Solar cooking is easy. Cooking time is not important as because slow cooking by solar energy is what gives food the enhanced flavor pleasing color, and aroma. The medicinal value evolves naturally by solar cooking. *Food cooked by sun rays (UV + seven color lights - Infra red rays) is lovely in appearance aroma, flavor and taste. Solar cooked food is charged with solar photons (source of all energies) is natural, prevents diseases and promotes better body and mind.*

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For a gracious hostess, solar cooking is a pleasant exercise of creativity. Solar Cooked food with loving care and imagination served on a platter with exquisite personal touch is always pleasure worth sharing with the family and friends.

We hope this manual will bring you with days of happy solar cooking and experimenting with new healthy dishes in your home, camping or in travel. Solar cooking will help to bring about a harmony of tastes, save time, energy and money in cooking of nutritious food for everyone anywhere.

You can use it at –

Farm house, camping, boarding.
Mountainous region with oxygen in short supply.
Picnic spot.
Remote areas not connected with grid supply.
Interrupted grid supply.
Power generated with any NRSE systems & devices like photo voltaic power, co-generation plants, and mini / micro hydro plants.
With sunrays during sunny hours.
Sun or no Sun, Tulsi Hybrid Solar Oven enables cooking 24 hrs. round the year.
Cooking with car battery through inverter is possible.

We advise you to read the Instructions carefully and do not hesitate to contact us for any help or guidance.

C. K. Rohatgi

CONTENTS

USER'S MANUAL–

Two models of Tulsi solar ovens are described in this Instruction Manual and after General Information about Solar cooking and Frequently asked Questions the Booklet is divided in three parts with Recipe information as Part III.

General information about Solar Cooking **Page No. 6**

Part – I

TULSI SOLAR OVEN: - This is the basic Solar Cooker of high quality and performance. It works with solar energy and is, therefore, operational during bright sunny days only.

1. **User's information.** **Page No. 17**
2. **Benefits of Tulsi Solar Oven. 18**
3. **Construction. 20**
4. **Directions for use. 22**
5. **Safety Instructions. 26**
6. **Maintenance and care of Tulsi Solar Oven. 27**

Part – II

TULSI HYBRID SOLAR OVEN: - Basic features are common with TULSI SOLAR OVEN. In addition, electrical back-up is provided which enables cooking at night and during non-sunny hours also.

General.	**Page No.**	**1**
Use during broad daylight.		**2**
Use in night or during cloudy day.		**2**
Circuit diagram.		**3**
Cooking with PV Panel.		**4**
Specification.		**6**

Part – III

Recipe information. **Page No. 1**

USER'S MANUAL –

General Information about solar cooking -

Very few people across the world are aware of the advantages of Solar cooking, leaving aside the scientific reasons for its preference over other conventional methods of cooking. The ancient Indians were aware of this and that was the reason why the world's oldest Scriptures "***VEDAS***" had regarded and worshipped THE SUN and had all praise for Solar cooked food. This chapter is an eye opener to those who condemn solar cooking as rubbish with no match to modern cooking appliances.

"Let food be thy medicine and medicine be thy food,"

-Uttered by the famous Greek physician Hippocrates more than two thousand years ago.

The importance of diet to health, especially in the prevention and cure of illness, is slowly becoming apparent. A variety of alternative diets are offered for treating cancer, cardiovascular disease, and food allergies. Virtually all these recommendations focus on eating fresher and freshly prepared vegetables, fruits, whole grains and legumes.

A healthy diet involves eating foods that provide all the nourishment that our body needs for growth, tissues repair, energy to carry out vital internal processes and to keep fit and active. In the last hundred years or so, the changes in eating habits in many countries have meant that large number of people has become over-fed. Ironically, at the same time these dietary changes have left a lot of us undernourished, lacking in vitamins, minerals and trace elements that would help us to be in the peak of health.

Foods contain nutrients essential for normal metabolic function. An imbalance in nutrient intake or the consumption of harmful substances is the underlying factor in many chronic diseases, such as coronary heart disease, diabetes, obesity, and some cancers. Some alternate dietary lifestyles are believed to offer a greater resistance to illness. Food can be therapeutic in several ways. It provides nutrient that is needed by a sick person in a form he or she can use. It also provides nutrients for persons who are deficient in them. Sometimes food also supplies an agent or chemical that aids in the metabolism of other nutrients. Many people are allergic to some foods such as chocolate, lactose etc. Similarly some people get constipation from excessive high intake of fiber. Diabetic patients especially type 2 diabetics, need to watch out what they eat especially food containing sugar. People with heart disease need to control the intake of foods containing high amount of fat and cholesterol. These are all common sense diet therapies.

Eating for health does not have to mean switching to a fussy, complicated diet, or adopting every new fad that comes along. In the first place, a healthy diet should be an enjoyable one. For conventional nutritionists, food intake is broken down into various essential ingredients, such as carbohydrates, protein, fats, vitamins and minerals; however, people generally do not think in this way but eat meals or snacks which are a mixture of various elements. People should have an understanding of what is useful and which foods contain which of these ingredients, and then to look at the overall balance within the diet. Balance is probably the key word in nutrition.

Food loses its vitamins through cooking on fire or cold storage, so buy small quantities of fresh food solar cook and eat within a short period.

SUNSHINE FOR COOKING

We all know that The Sun is what drives everything in this world. It makes plants to grow, it drives the winds, tides, waves and ocear currents and it causes rains and makes rivers flow. Today, the world is vastly different; we have made living more comfortable fo ourselves but it has been achieved at great cost to the environment. We are burning up the fossil Fuels with insatiable greed and are constantly polluting our atmosphere by the product of the burnings; even basic five elements are polluted.

FIVE ELEMENTS ARE ESSENTIAL FOR LIFE

A proper understanding of the sunrays, Photo-chemistry, Photo-physics, Photo-biology, interaction of light and matter, physical-chemica properties of electronically excited molecules, environmental effect on absorption and emission, and spectra photosynthesis is the requirement of the present times. Sunrays affect five essential elements and human body comprising of these five basic elements (air water, earth, ether and fire). An understanding of this effect is essential before one can appreciate solar cooking and effect of solar cooked food on living beings.

SOLAR COOKER – AN ANCIENT COOKING DEVICE OF INDIA

Modern Science has not been able to touch even a fringe of knowledge ancient Indian saints had on the subject. Some indication we get from holy Hindu Scriptures about the advancement of science and immense knowledge they had.

Solar Cooker is an ancient cooking device of India. Some of the oldest scriptures of India viz., "**RIG VEDA**" and "**BRAHMAN GRANTH** written 5000 years ago, describe food cooked by Solar energy as lovely in appearance, aroma, flavor and taste. It is the ultimate medici for manly vigor and glorious skin complexion; whoever uses solar cooked food, does not suffer from digestive disorders, blood disord and respiratory problems. Solar cooked food was called "**AMRITA**" (**NECTAR)** and the cooking appliance was known as "**AKSH PATRA**" or **"SURYA BHAND"** which was used by highly learned people of those times.

सूर्यमहिमा

तं सूर्य जगत्कारं महातेजं प्रदीपनं
महापापहरं देवं सूर्य प्रणामाम्यहम
नमस्ते आदित्य । त्वमेव प्रत्यक्षं कर्म कर्ताअसि।
त्वमेव प्रत्यक्षं ब्रम्हासि। त्वमेव प्रत्यक्षं विष्णुअसि।
त्वमेव प्रत्यक्षं रूहवेअसि। त्वमेव प्रत्यक्षं ऋगअसि।
त्वमेव प्रत्यक्षं तामासि । आदित्याद्भूमिर्जायते ।
सर्व- सूर्याभ्दवन्ति भूतानि सूर्येण पालितानि च सूर्ये लयं प्राधुवन्ति।
सूर्य तत्वा अन्नः महाव्याधेप्रर्मुच्यते
ऊँ शान्तिः शान्तिः शान्तिः
अकालमत्युहरणं, पुष्टितुष्टिप्रदायकं,
त्रिदोषहरणं, त्रितापशामकं, सर्वव्याधिविनाशनं,
सूर्यपक्कान्नमहाऔषध ऋद्धिसिद्धि प्रदायकं
ऋणुपूर्व मुनि शार्दुलः सूर्यात्मे अन्नः शुभ

GLORY OF THE SUN

'SURYA MAHIMA'

(THE SOUL OF THE WORLD)

C*reator of the world of great lustre, mitigator of all sins, we pay homage. You are visible doer and deed, you are the only visible creator (Brahma), the preserver (Vishnu) and the destroyer (Mahesh), and you are 'rig', 'yajur', & 'Sama Veda. From THE SUN is born the earth, all the objects are nourished and preserved by The SUN and in the end al merge in The SUN. All edibles ripened or cooked, in the end merge in THE SUN. All edibles ripened or cooked in the sunrays charge into super medicine the 'Amrita' (nectar), food improves cellular health and longevity of life.*

'O' GREAT SAGE ANGRIS LISTEN: FOOD COOKED BY SOLAR ENERGY PROMOTES LONGEVITY, IS NURISHING AND SATISFYING, IS CURE FOR ALL THREE DISORDERS (STOMACH, BLOOD, AND RESPIRATORY PROBLEMS) AND MOST TYPES OF FEVER AND AILMENTS. IT BALANCES "TRITAP" AND CHARGES "PRANA", "OJAS", AND "TEJAS" IN HUMAN BODY, FOR DEVELOPMENT OF GLOWING PERSONALITY. NATURE HAS EVERY THING TO PROVIDE A HEALTHY LIVING.

Our attempt is to bring people close to nature and provide them with adequate training to lead a healthy life.

WORLD OVER, THERE IS GROWING CONCERN OVER SIDE EFFECTS OF CHEMICAL PREPARATIONS.

Modern medicines help to achieve quick results, but are quite often used to control symptoms rather than cure the root cause of the symptoms. Strong medicines with wrong diagnosis, administered without proper direction often cause untold sufferings to the patients While these medicines suppress the disease, solar cooked food works at removing the cause of disease itself with no side effects. Mos of the diseases can be cured / prevented by solar cooked food, cleansing of the body internally and externally and maintaining the correc body temperature at different parts of the body.

MODERN FAST COOKING METHOD ZAPS MANY OF NUTRIENTS FOUND IN NATURAL AND SEASONAL FOOD AND IS RESPONSIBLE FOR POOR HEALTH.

India was a leader in utilizing natural energies in the ancient times, but modern culture (especially food habits) tempted us to use commercial energy for various applications for the sake of monetary gains. This commercial energy burns the medicinal value of natura food and ruins joy of living.

As per INDIAN ancient Scripture 'GEETA':

आहारः प्राणिनः सधो बलकृद्धे हधारकः।
आयुतेजः समुत्साहः स्मृत्यो जो अग्निविवर्धनः।।

Food (AAHAR) provides, longevity, intelligence, vigor, health, courage, senses, memory and energy to brain, the nucleus of our body; food improves cell growth that relieves and cures the diseases and deficiencies without supplementary doses of medicines.

Key benefits of Tulsi Hybrid Solar Oven

Food cooked in Tulsi Solar Oven is charged with solar photons, is nectar, improves longevity, saves time, energy, money labor. Sola cooked food is natural and pure full of all natural energies to make the individual healthy and life pleasant.

- Tulsi Solar Oven is most convenient cooking appliance known to mankind, cooks complete family meal at a time without fuss.
- Is aesthetic, convenient in handling.
- There are no moving parts, lasts life long.
- It saves time money, energy and lot more.
- Cooks tasty food full of flavor and aroma and provides hot food day and night.
- It is eco-friendly, no igniting fluids or flame, no fire hazard, smoke or soot. Indoor quality cuisine cooked literally anywhere in the world. Environmentally friendly – no open flames
- It cooks four dishes at a time (full meal), unattended. No time setting is required.

- No chances of burning food, no charring, no boil over.
- It is portable, sets in seconds, can be used by RV campers, outdoor hobbyists. Portable for on-the-go life styles.
- Every one can use it including, young children or handicapped.
- Suit case design makes easy portability.
- Cooking capacity 2Kgs. (4Lbs+) at a time and 6 Kgs. in rotation with solar or electrical back-up Hybrid Oven.
- Tulsi Hybrid Solar Oven is designed with increased focus on well-being and longevity.
- Pays for itself over each and every time you cook.
- Cooks at any elevation; some changes make it operational in high hilly regions and in sub-zero conditions.
- Stores away like a suitcase.
- Hard to cook meat can be cooked easily.
- Food remains hot for hours, solves flexible meal time requirements of modern family.
- Shelf life of food cooked in Tulsi is three to four times more than cooked over quick fire appliance.
- Food with lesser oil can be cooked, solves obesity problem.
- Develops strong immune system to keep body strong enough to defend virus.

WHAT IS SOLAR COOKING? -

Solar cooking means cooking in open with Sun rays. **Tulsi Solar Oven has excellent features that let you cook almost all types o food automatically. It can bake; steam, simmer and can keep food hot for hours and without any botheration of remaining constantly in the kitchen to watch. Just load the food in cook-n-serve bowl and go for your routines.**

Cooking is gentle, less oil and spices are required, and you get the unique effect of food cooked over a slow fire in traditional way withou to bother to watch it. It is an oven cum pressure cooker without pressure on housewife's time. Almost every thing except cooking of few dishes involving deep-frying is possible.

Tulsi Solar Oven cooks four to five dishes at a time gently and safely. The food will not burn, boil over, or dry even if left unattended fo few extra hours. Solar Oven makes delicious soups, stews, and casseroles but is not limited only for this type of cooking. With its gentle cooking, fish and delicate fruits and vegetables remain whole, even after cooking. Even mulled wine or warming hot punches can be prepared.

Tulsi Solar Oven is aesthetically designed, convenient, and practical in use cooking appliance. It does not require frequent cumbersome tracking or any tracking mechanism.

TULSI HYBRID SOLAR OVEN

OVEN IN USE DURING OUTING IN U.S.

TULSI SOLAR OVEN

AT AN EXHIBITION IN U.S

RECIPES PREPARED IN ONE DAY ON TULSI OVEN

EXTRA LIGHT

Frequently asked questions-

What can be cooked in *Tulsi Solar Oven?*
Anything, which you can cook in a conventional electric or gas oven, can be cooked in a Tulsi Solar or Tulsi Hybrid Solar Oven. You car bake, boil and steam using any of your favorite recipes. Four different recipes can be cooked in one go.

What is the cooking temperature range?
There is no need to worry about temperature range. Quality cooking can be done in 1 to 2 hours depending upon solar intensity, type o food and environmental conditions. Food will not burn even if left for extra time.

How does the food-cooked taste?
Food cooked in Tulsi Oven tastes much better than food cooked over conventional stoves. The slow cooking enables the natural flavors to be retained in the food. Rice grains, pulses and grains retain their shape and yet are fully cooked. Rice rises to its full volume and is fluffy. The food cooked in Tulsi Oven is always tender and more palatable.

How long does it take to cook?
Cooking takes 1 to 2 hours. Cooking time depends on intensity of sunshine and the nature and quantity of material to be cooked. 'Harc Meat / Hard Pulses / Beans etc require more time. However, pulses / beans should be pre-soaked.

Does Tulsi Solar Oven require special utensils?
No, but dark, thin-walled pots with lid work best. Black pots absorb heat from sunlight and tight-fitting lids help to hold steam in the pot Dark glass casserole dishes with lid also work well. For baking cakes, breads cookies, and pies, dark cookie sheets and baking tins work best. Tulsi Oven comes with four stainless steel pots.

Does food require constant stirring?
Tulsi Solar Oven requires no stirring because there are no hot spots. The temperature rise is gradual. It is difficult to burn food in a Tuls Solar Oven which is fully loaded.

Does Tulsi Solar Oven require maintenance?

Tulsi cooker is virtually maintenance free and is a lifetime asset. Only the Glass and Reflector require to be carefully handled, even if i breaks it can be easily replaced. The only other maintenance required is a coat of matt finish black board paint when the paint wears off.

Does Tulsi Solar Oven need constant tracking?

If the Oven is positioned at the average position of the Sun's transit over the sky tracking may not be necessary if there is good sunshine However, if the Oven was aimed at the sun at start, a couple of nudges to reposition it over the 1-2 hour period would be desirable.

How hot does Tulsi Hybrid Solar Oven get?

Wrong question! The right one is: "how much food will it cook"? Answer: an entire meal for a medium size family -main dish and ho beverage simultaneously but if you really need to know the temperature: typically 150º C in hot summer and 130º C in winter. It cooks most effectively from 9 AM to 3PM in summer and from 10 AM to 2 PM in winter when cooking with Sunrays; but cooking electrically is possible any time.

In what season will it cook?

Spring, summer are best; but it cooks round the year with little more time. However, cooking with Tulsi Hybrid Solar Oven is possible 24 hrs round the year with very low electrical consumption.

Is this design well proven?

Tulsi Hybrid Solar Oven is in operation for over a decade and Tulsi Solar Oven for about 30 years with thousands of satisfied customers in many countries. The Oven with few modifications has been used by Indian Army at Kargil heights in sub-zero conditions with satisfactory results.

How strong and lasting is the Oven housing?

UV resistant long lasting Housing is fabricated using heat–stabilized reinforced plastic 30% by weight with long glass fiber chops; the result is a range of solutions that deliver lighter, strong and more viable housing than ever before.

What energy source is required for Tulsi Hybrid?

Solar and or low wattage of power backup may be from interrupted or weaker grid. PV Panel (mounted on top of the house or on Ca roof for outings) with Controller, Inverter and Battery can be used to cook on Tulsi Hybrid Solar Oven without any problem.

What about electrical components?

Most of the components fitted in Tulsi Hybrid Solar Oven are UL/CE approved.

Tulsi Hybrid Solar Oven the world's most admired practical in use Solar Cooker.

Tulsi Hybrid Solar Oven is designed to suit modern life style and is most convenient and time saving cooking appliance. Based on desigr and performance, Tulsi Solar Oven has excellent features, besides being the safest cooking appliance. The Hybrid Solar Oven meets the cooking needs of people all over the world; built to tackle the toughest cooking task most conveniently and economically. It cooks al types of food right from boiling caramel milk or tea and exotic Indian, from breakfast to dinner without any fuss. The Solar Oven cooks food in the Sun during bright Sunlight with Solar Photons and during non Sunny or Partly Sunny hours with the help of low wattage & low consumption of electric power. It solves the pressing problem of flexible mealtime requirement of modern life style and no frayed nerves when family guests arrive late for meal.

Solar Oven cooks most healthy and tasty food besides it keeps away in-house pollution menace, which is common while cooking on gas These gases not merely cause lungs problem, equivalent to smoking 200 cigarettes per day, pregnant women who cook food with LPG are more likely to have miscarriages and put the health of babies at risk.

Effect of fast cooking modern appliances on family health

Fast cooking on coal, kerosene and LPG using pressure cooker or modern fast cooking methods such as Microwave-oven zaps the fooc and destroys food fibers and various natural energies present to compensate our body and brain requirement to keep us healthy.

In solar cooking food which, is in biochemical stage is gently cooked over a longer period by electromagnetic waves of sur rays (solar photons) consisting of energies like heat, light, bio, kinetic and chemical energies; food gets time for a sequence o chemical events forming too many known and unknown chains of organic compounds. Enzymes present, on heating, grow-up

and stimulate the yeast activity, breaks complex protein into simple digestible form, starch is broken into carbohydrates and fatty acids break, and allows minerals to be absorbed by the body.

Box Type Solar Oven gently cooks food in its own juices thus conserving the vitamins and minerals while enhancing aroma and taste Hence, you can cook without water and fry without fat.

It has also been observed that dietary fibers remain intact in solar cooking. Fiber is an important characteristic of food of plant origin Lack of fiber in diet has been associated with several gastric-intestinal disorders including constipation, DI-vermicular diseases of color and even colon cancer. High fiber foods are of particular help to people with obesity, they are usually low in Calories increase satiety thus preventing excessive intake of food. It also prevents absorption of cholesterol and thus reduces serum cholesterol.

Food cooked by Solar Oven is more nutritious as the food gets time to form various compounds of vitamins, minerals, and other known and unknown substances, which in the presence of food fiber are easily digestible. Vitamins alone are not appetizing, that is why supplementary doses of vitamins prescribed by the doctors are not good substitutes for the real thing. In Solar Oven the temperature rise is slow, which safeguards the vitamins since the temperature does not exceed above normal cooking temperature and the carbonization of these compounds does not take place.

Solar Oven cooks food slowly and gently allowing desirable organic reactions in food to be completed while developing and enhancing its natural flavor, aroma, sweetness besides maintaining nutritious value of food. Solar cooked food works like a medicine on our body being easily digestible. It makes our body strong enough to defend against harmful bacteria, viral infections, and harmful free radicals present in the atmosphere.

Solar cooked food is full of natural enzymes, well accepted by human body, which multiply in contact with human enzymes and so easily absorbed or digested and synthesizes various food contents, or gives more bio-power to human body.

Just eating healthy food, stimulates immunity. Recently, scientific research has revealed the complex mechanism of the immune system and its dependency on diet. Nothing makes as much difference to your health as a well functioning immune system. If you have good immunity, you can prevent anything from a common cold to viral infection, stomach disorders, chronic fatigue even the deadly cancer. Food contains antioxidants, which stimulate immune functioning and increase your resistance to infection.

In cooking with solar photons (not with fire) enzymes at required temperature increase immune boosting cells and antibiotic contents and too many known and unknown compounds develop that do not diminish from natural food. Natural enzymes create unique metabolic compounds that alter the food chemistry to effect dynamically on human physiology as well as prevention of diseases.

Part – I

TULSI SOLAR OVEN: -

1. USER'S INFORMATION

Most of our ancestors cooked with fire, while protecting food from burning and sticking to the pots by constantly watching and stirring Solar cooking is different, but the difference is nice. Gentle cooking or slow cooking retains the moisture and vitamins, makes food tastier. Cooking time is generally 1-2 hours for cooking four different dishes depending on the solar intensity and type of food stuff to be cooked. You simply need only put the food stuff in and take out whenever you require for eating, no watching or stirring or worrying. In other words it is wonderful time saving cooking device.

Solar cooking is versatile and time-tested; you can cook variety of dishes without compromising on your health. In this User's Guide are given few recipes to get you started and hint on how various dishes can be cooked. Solar cooked food has immense therapeutic value, especially at the time when ***Killer Diseases are on the rise and human values are deteriorating.***

An important consideration in Tulsi Box Type Solar Oven design is the intended function. For general cooking, many of us prefer cooking below 130° C as this requires less attention and is very slow to be overcooked. Only few people are aware of the fact that gentle cooking preserves flavor and nutrients, it does not produce harmful carcinogens, which develop in uncontrolled high temperature cooking. General recipe books indicate that cooking starts at about 70°C, some dishes are considered done when the internal temperature reaches 90° C.

Solar box cooking is a different technology. Food gets tender and develops delicate flavor when cooked at lower temperatures for longer time. Food cooked with solar energy is dedicated to the education and assistance of those choosing to maintain and/or improve their health through a healthy and nourishing diet at the same time saving their family from pollution menace and bringing happiness Rohitas Electronics takes pride in offering a practical in use Tulsi solar oven, which cooks nutritious naturally flavored healthy food.

New technology relies on the freely available and bountiful gift of nature, i.e. solar energy available at hand and Tulsi Solar Oven is the result of 30 years of research.

2. BENEFITS OF TULSI SOLAR OVEN -

Safest cooking appliance designed to cook healthy food for modern fast placed life style.

TULSI SOLAR OVEN IS AESTHETICIAL, ELEGANTLY DESIGNED, SIMPLE & PRACTICAL IN USE. COOKS FOOD WITHOUT CONVENTIONAL ENERGY THAT PRODUCES FIRE, OR HARMFUL SMOKE. IT IS SAFE TO PEOPLE AND ENVIRONMENT THERE ARE NO CHANCES OF INJURY AND PROPERTY LOSS.

- It cooks with solar energy which is a combination of natural energies and is simple, convenient and safe and tha delicious four–course meal can be cooked even by kids, handicapped or aged people.
- It cooks food slowly at lower temperature in natural way, developing aroma, flavor and taste.
- It is safe to cook in Tulsi Solar Oven; no chance of fire, no stirring required.
- It cooks with freely available solar energy, available everywhere. It is an outdoor cooking appliance that works nicely in campinç or in travel
- Designed to suit modern nuclear family concept, is safe, economical and free from pollution menace.
- Tulsi Solar Oven cooks unattended and saves time.
- Food never over cooks.
- Economically weaker sections save on firewood / kerosene / coal or LPG while rich urban consume natural food to live happily without drugs and lesser diseases.
- Tulsi solar ovens are portable and energy consumed is free.
- No chance of milk spilling over or food burn even if is left over for few hours.
- Shelf life of solar cooked food is three to four times more than the food cooked over other cooking appliances.
- Cooked food remains hot for hours, no need to reheat food if there is gap between cooking and eating.
- Solar cooked food is charged with solar and cosmic energies (life forces).
- Tulsi solar oven cooks four dishes at a time without any fuss.

Saves time, money, labor, LPG gas which can be used for other tasks.

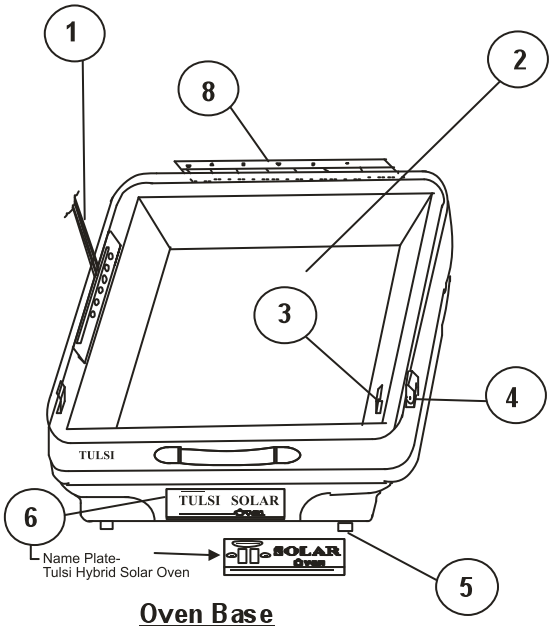
BEING HANDED OVER TO ARMED FORCES FOR USE AT ALTITUDES

TULSI SOLAR OVENS IN CAMOUFLAGED COLOUR

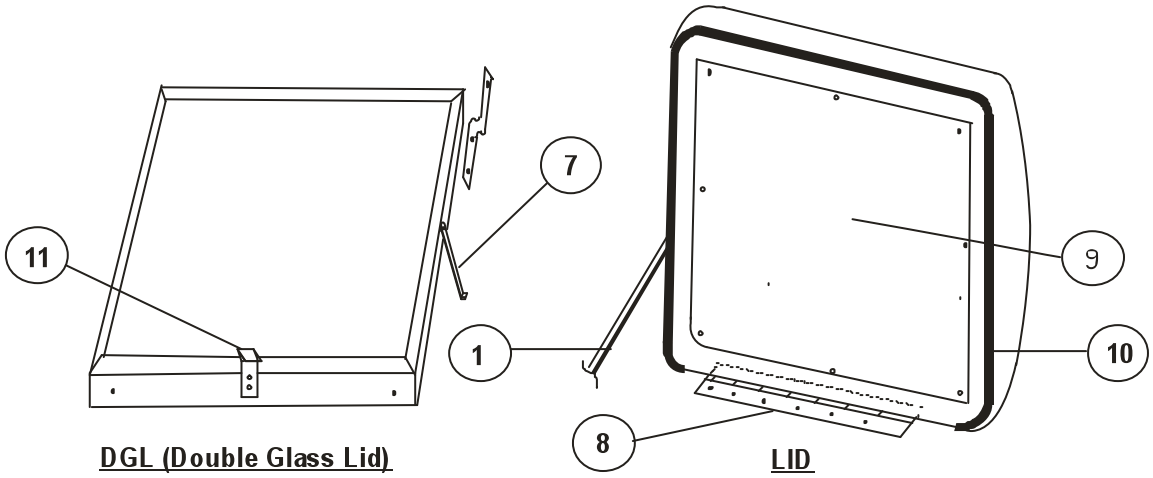
3. CONSTRUCTION

The outer casing of Tulsi Solar Oven is made of UV stabilized Fiber reinforced plastic. A high reflectivity metallic mirror is fitted in the lid, which is hinged to the body. An angle adjuster mechanism is provided which adjusts angle as per Sun inclination so that reflected sunrays always fall on the pots and tray.

A double glass lid (DGL) is hinged to the body; it covers the black painted aluminum tray. The Glass along with the tray and seals make it a closed hot chamber and prevents heat loss. High-density insulation is provided at the bottom and around the cooking tray to prevent escape of heat. Four stainless steel pots painted with especially developed black paint are kept inside the tray for loading the foodstuff. Refer Illustrated view of components given below: -



Oven Base



DGL (Double Glass Lid)

LID

1- ANGLE ADJUSTER, REFLECTOR
2- TRAY
3- CLAMP, DGL HOLDING
4- LOCK
5- BUFFER
6- NAME PLATE
7- DGL STAY ROD
8- HINGE
9- METALLIC REFLECTOR
10-BEADING
11- BKT. DGL LIFT

4. DIRECTIONS FOR USE

INITIAL SET-UP:

1. Un-pack the oven.

2. Clean thoroughly with soft, lint free dry cloth. Cleaning with chemical or detergent should be avoided.

3. Take oven outside in the sun and keep it on the hard surface like wood or on ground. The oven should never be placed on a rexine / straw/ rubber mat.

4. Gently peel off lacquer covering from the reflector. No liquid or detergent or any chemical should be used for cleaning the reflector; use only lint free dry cloth.

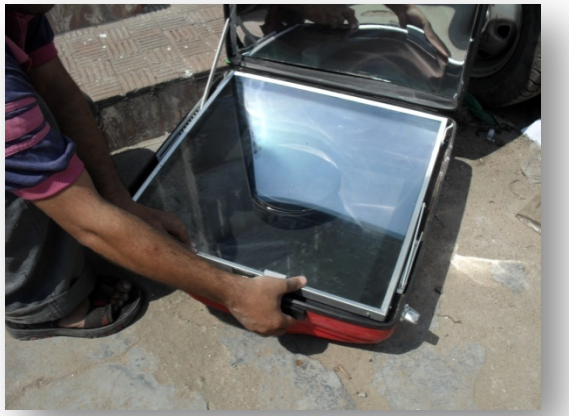
5. Open glass cover and let the oven be heated for about 15 to 20 mts by sunrays or electrically in case of Tulsi Hybrid Solar oven. This will remove the trapped odour, if any. Also pre-heating the cooker will reduce the cooking time.

NORMAL USAGE:

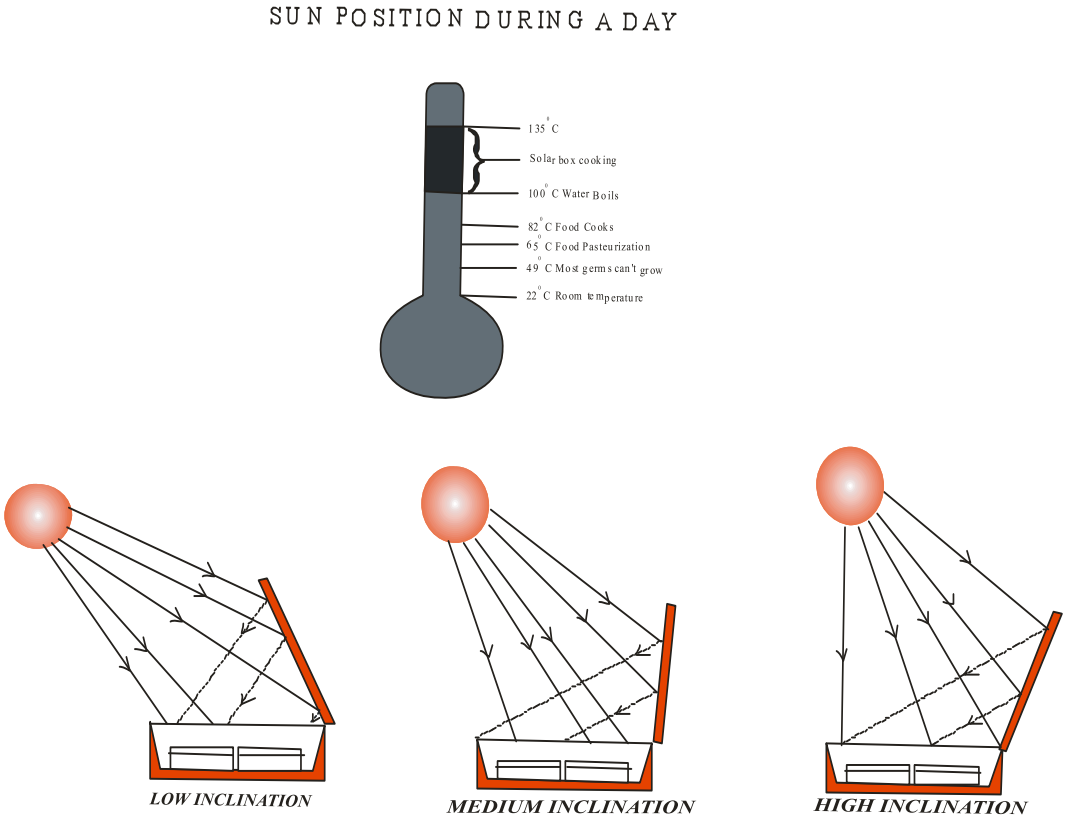
Please note that the Oven lid (containing reflector) should be kept open when cooking by sun rays or electrically. The lid should be closed only after the oven is cooled down otherwise the glass and / or shine on the reflector may get damaged.

6. Load the cooking pots with foodstuff and keep in the tray. Normally less water is required for cooking in the Oven , than required for cooking by conventional means.

7. Press the Double Glass lid slightly with the hand, so that the lid is closed properly.



8. Keep the oven facing the sun. Adjust reflector angle with the help of 'Angle Adjuster' so that the reflected rays fall on the glass surface and not outside the oven. This is very important otherwise it may not cook or leave the food half cooked.



9. Although angle adjustment is normally not required in between cooking but it is better that the oven position and reflection is checked every half an hour and adjusted, if required, in order to take care of sun movement in the sky.

10. Small amount of vapor between the glasses of DGL will not affect the oven performance. This will go off if the oven

is kept open in the Sun for few minutes after cooking is over.

11. The glass cover should not be opened in between but 10 to 15 mts. after the droplets start flowing on inner surface of the double glass.

    Now the food is cooked and is ready to be taken out and served. Since food does not burn there is no harm if the cooking pots remain in the cooking tray for some extra time.

12. THE OVEN MITT SHOULD BE PUT ON BEFORE TAKING OUT THE COOKING POTS FROM THE TRAY, OTHERWISE HOT STEAM MAY CAUSE INJURY TO HANDS.

13. After, the food items have been removed from the tray, the Double glass lid should be left open to let the oven cool down to its normal temperature. When the oven cools down, always wipe the tray and the inner surface of the Double Glass Lid, to remove the traces of water and food particles on the tray. Close the Double glass lid and the solar oven after use.

14. After closing, always rest the oven in standing position (vertically).

- While cooking use water, only if required. Do not add water to green vegetables, preferably use little water.

- Keep containers closed while cooking, however, in case of bread, cake etc. or for shallow frying, pots should be kept open.
- Soften hard pulses in water for at least 8-9 hours or overnight before cooking for tastier, nutritious and quicker results.
- Do not open glass lid once the food is placed inside for cooking until the water droplets start flowing inside the DGL indicating that the food is cooked.
- The frozen meats and vegetables should be thawed, before placing them in the oven

It is suggested to use specially designed four Nos. of Stainless Steel cooking pots supplied with Tulsi Solar Oven, to save time, prevent cooking failures and preserve food values. These pots are painted with especially developed black paint. However, you are at liberty to use your own glassware or other metal cooking pots but those may not be efficient and may increase cooking time.

Always make sure that when you are using any other cooking utensil, the height of the same should not be such that it touches the inner glass lid.

5. SAFETY INSTRUCTIONS

- Keep Tulsi Solar Oven in vertical position during transportation to avoid damage to Reflector or Glass breakage.
- Use oven mitt while loading and unloading the pots to avoid any injury due to hot gases.
- Reflector lid should always be kept open while cooking with Sunrays or electrically; when the cooking is over close the lid only when the Oven cools down.
- As a precaution switch OFF the mains supply before loading or unloading food while cooking electrically.
- Water in the cooking tray should be wiped with dry cloth after the cooking pots are removed and the tray is cooled down.
- Water or any type of chemical should not be used for cleaning the Reflector, gently use only lint-free dry cloth.

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6. MAINTENANCE AND CARE OF TULSI SOLAR OVEN

Tulsi oven is virtually a maintenance free cooking appliance requiring only general up keep, periodic inspection for condition and regular cleaning for best performance and long life.

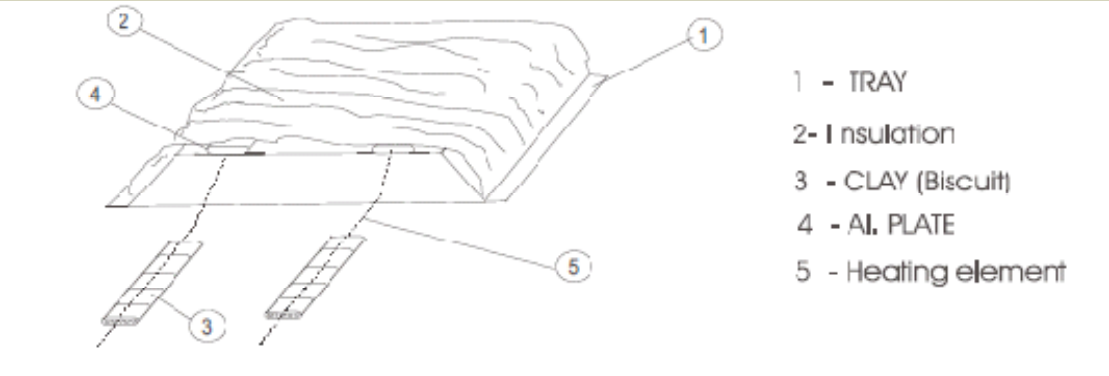
- Scrubbing with coarse material will damage the black surface required to absorb solar heat. Although the black coating is long lasting, but in case the Tray or cooking Pots require recoating, paint them with matt finish Black Board Paint.
- Keep the Reflector and glasses clean and free from dust. Clean surface improves performance.
- Tulsi solar oven is light - weight, you can carry it inside during night to protect it from rain and animals.
- Take care of oven outer surface, reflector and glass because they are liable to be damaged or broken.
- Inspect periodically the cooker for condition and repair / replace the damaged seals etc.
- Cooking pots should not be used as storage for cooked food. Also they should not be left on open fire.
- Never, keep any frozen meat or vegetable directly from the refrigerator in the hot oven. The same should be bought to the room temperature first .

Part II

TULSI HYBRID SOLAR OVEN

1. GENERAL

There is no difference in the construction, shape and outer look of Tulsi Solar Oven and Tulsi Hybrid Solar Oven except that an electrical system is provided in Tulsi Hybrid Solar Oven which enables cooking round the clock through-out the year. Heaters are provided at the bottom of the Tray connected to a Thermostat, which controls and maintains the required temperature within the specified range by cutting in or out the electric supply. Two illuminated Switches are provided on the front panel. When the cooking is set to 'low' one Switch illuminates and when it is set to 'high' both Switches illuminate. Most of the electrical items fitted in Tulsi Hybrid Solar Oven are UL / CE approved.



HEATING ELEMENT & INSULATION AT TRAY BOTTOM

TULSI HYBRID SOLAR OVEN

2. USE DURING BROAD DAY LIGHT

Follow instructions given in **Part – I for TULSI SOLAR OVEN**

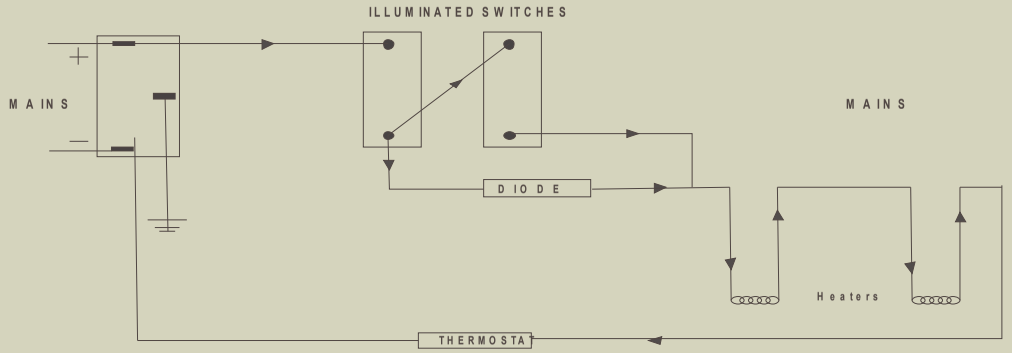
3. USE IN THE NIGHT OR DURING CLOUDY DAY

When electrical back-up is required for cooking, pre-heat for ten minutes and thereafter load the food stuff. Close the

Pots and place them in the Tray and tightly close the DGL. **Ensure that the Power Line Voltage and the Voltage of Tulsi Hybrid Solar Oven is same by referring to the Label affixed near the Socket.** Now plug in the Power Cord. Put the Oven Switch on 'Low' which will get illuminated indicating Low temperature mode; for 'high' setting simultaneously put 'On' the other Switch also and observe that both the Switches illuminate. The Thermostat will control the Oven temperature and will take care of cooking. Unlike in cooking heaters and other modern cooking appliances electric consumption in Tulsi Hybrid Solar Oven is low just because the heaters do not remain on during the entire cooking period and that the Heaters fitted are low wattage Heaters.

4. CIRCUIT DIAGRAM

Circuit diagram of Tulsi Solar Oven (Hybrid)



5. COOKING WITH PV (Photovoltaic) PANEL

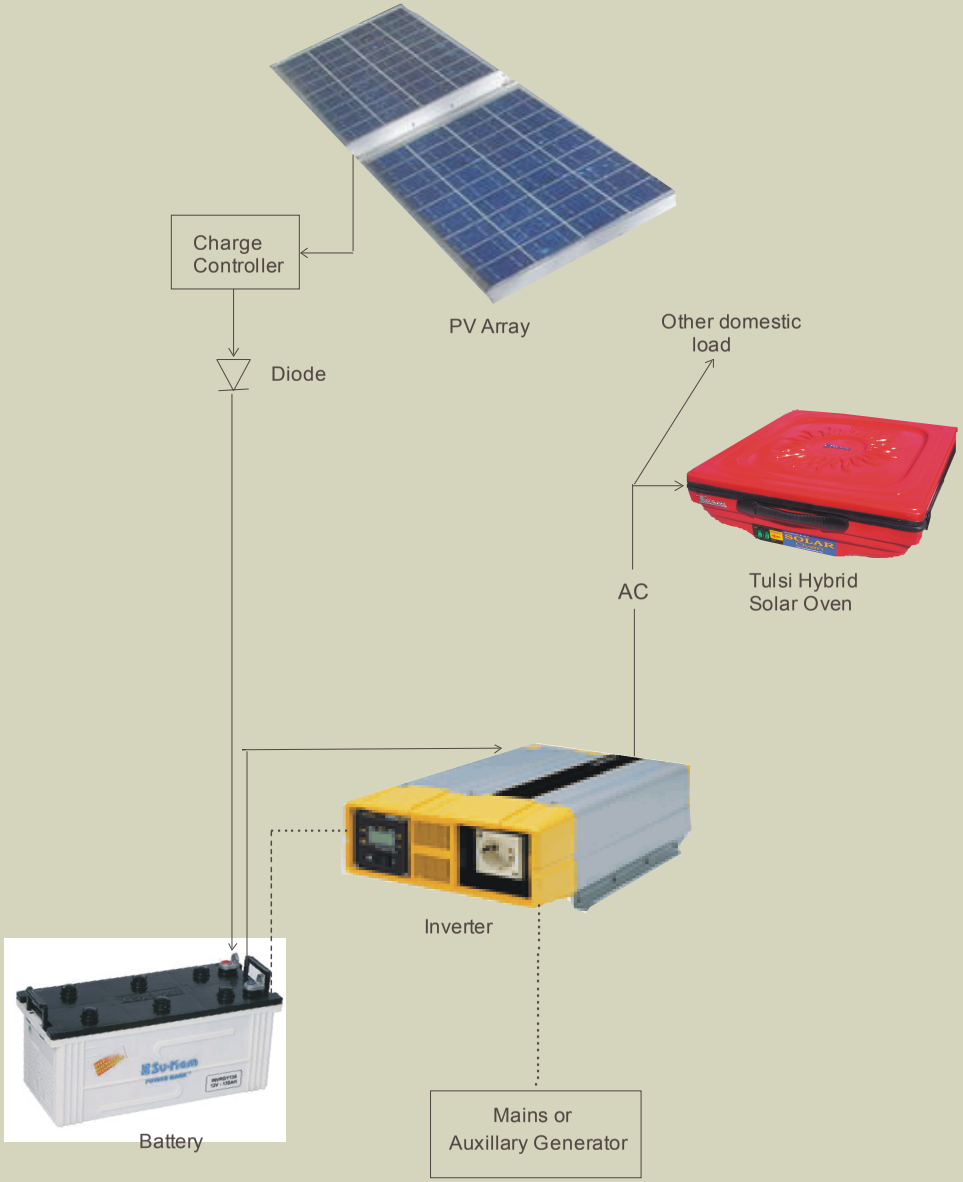
One of the biggest problems faced by the Solar Oven users' is how to cook food in remote village or hilly terrain in the night or on cloudy days. There is no grid supply, as such; cooking is not possible on any Solar Cooker presently available in the market. The problem is genuine but the same is addressed by installing Photo-Voltaic Panel (PV Panel) and cooking on Tulsi Hybrid Solar Oven. This stand-alone -system is very convenient and makes cooking very easy and economical. After initial expenditure on purchase of the PV panel and associated items, there is no expenditure involved on cooking except periodic replacement of Battery. In case other household gadgets and house lighting etc. are also desired to be operated by means of PV Panel, the array of Panels, Inverter and Battery of higher capacity, as per the requirement, will have to be installed. For details please refer the diagram on next page.

For those who want to enjoy trouble free long drive and outings, they may install PV Panel on roof of their SUV and cooking may simultaneously go on inside the vehicle while it is running on smooth road. Alternatively, on reaching the destination, simply take out the Oven, plug-in supply from Inverter already charged during driving. Enjoy outing with your family, while the Oven will simmer and prepare meal ready to be served as and when you desire.

The equipment required for cooking by means of PV Panel is Optional and the kit does not form part of the standard Oven. The items can be locally purchased and got installed by some technician of medium caliber. In case of any problem, Rohitas Electronics may be contacted for supply of necessary items.

Tulsi Hybrid Solar Oven is a real cooker or if you can call it a '**mobile kitchen'** will be more appropriate. If you lose all power, you can still cook just about anything, or you can dry your perishable foods before they go bad in an emergency situation. Also if you lose power, it would be difficult to run your home oven on battery or generator power whereas, Tulsi Hybrid Solar Oven is easy to run on a car battery, small generator or Inverter. Thus it enables cooking in any situation, even disabled can use it on their own.

COOKING IN TULSI HYBRID SOLAR OVEN WITH PV PANEL



6 SPECIFICATION

Basic Tulsi Solar Oven (without electrical backup) is same in performance as GRADE 'A' of Indian Standards Specification No. IS: 13429: 2000.

Tulsi Hybrid Solar Oven is a variant of the above with electrical heating system as an additional feature.

Technical Specification:

Aperture area	:	0. 2372 m^2
Cooking Capacity	:	Two Kgs. approx. at a time.
Cooker box material	:	Fire retardant resin, UV stabilized Fiberglass body.
Pots	:	Four stainless steel, solar black painted.
Cooking tray	:	Al. 480 x 480 mm.
Cooker outer box	:	535 x 535 mm.
Heater power	:	High – 500 watts ± 10 % , Low – 250 watts ± 10 %
Voltage	:	Oven is supplied in 12, 24, 48,110 or 220 Volts.
Power consumption	:	0.15 to 0.50 units for cooking one time meal depending upon ambient conditions, quantity and quality of food etc.
Switch Position	:	Low - for gentle cooking. High- for faster cooking.

Part III

1. RECIPE INFORMATION

SOME USEFUL SUGGESTIONS FOR COOKING IN TULSI HYBRID SOLAR OVEN

Preheat Tulsi for 10-15 minutes on High mode before cooking, to destroy any harmful bacteria, which may be present in the Oven during storage. Connect the detachable power cord only when you use electrical back- up. Cookers generally are available for 125 / 250 Volts power supply, but other voltage Ovens can also be supplied on order.

Browning method: Browning improves the appearance and flavor of many recipes. Some people, however, prefer not to do this and it is really a matter of individual taste. Browning can be done in many ways.

(a) Heat a little oil in a small pot during pre-heating time then add thin sliced onion, Asafoetida etc, according to the requirement and after 20 minutes transfer it to vegetable or meat.

(b) Atleast, once a week prepare different combination of herbs and onion in oil for 30 minutes, store in a bottle, pre-heat the Oven, and transfer the required amount of mixture.

(c) Cook vegetable/meat and brown in separate small pot. After cooking is over transfer this to the main dish.

(d) **All frozen fish, meat poultry and vegetables must be completely thawed before cooking.**

For a low fat diet, it is suggested not to brown food.

1. Switch on to “Low” mode for cooking food.
2. Put vegetables/meat salt along with all spices. (Different dishes in different pots).
3. Add herbs and seasonings with minimum quantity of water, since water does not evaporate during cooking inside Tulsi, except in pulses and rice where more water is absorbed by the food itself.

OVEN SETTING AND TIME

After placing food into the Tulsi oven, adjust the Oven properly in the open Sun or take it in, if desired to use it indoors with electrical power. Select the mode whichever suits the day. “LOW” setting is used for throughout cooking, but certain recipes, i.e., steamed pudding which includes a raising agent need high temperatures to ensure that the sponge or such mixture rises. Chicken and joints of meat should be cooked only on high to ensure quick heat penetration into the solid. Chicken chops and cubes of meat may be cooked on low, as per requirement. However, most of the vegetarian food cooked on “LOW,” tastes better. Indian Vegetarian food on “LOW” setting is most delicious where normal cooking time is 1 to 2 hours, food cooked for long hours tastes good and is nutritious and healthy.

DURING COOKING

After closing the DGL, it is best to forget about the Solar Oven until you are ready to serve the food. Resist the temptation to lift the lid and peep for checking cooking of food, because lifting of lid causes temperature drop and it will take almost same time to develop the same temperature again. The food should not be stirred until the end of cooking.

COOKING UTENSILS

Stainless steel containers, duly black painted from outside, are supplied with Tulsi for cooking. While using Tulsi with electrical back up, you can conveniently use your own utensils, which may be stone or glass ware or any other metal, provided height of containers do not touch DGL, in this case, cooking time will vary. In case of use of stone or glassware one has to increase cooking time by about 50%.

USE HYBRID SOLAR COOKER AS A HOT CASE / OR A CURD MAKER

Tulsi is well insulated, and can be used as a Hot Case for keeping food hot for 4-5 hours. Thus, it can be used as a Curd Maker too; just heat milk slightly and allow fermenting milk after adding about 4 teaspoons of curd. The curd will be ready in few hours.

RECIPIES

Using Tulsi requires certain amount of patience, but once you have devised your own method of preparation cooking becomes automatic and natural. We are presenting you few basic recipes for a startup. But after sometime you can devise your own method of cooking.

PLAIN RICE

Put rice into one of the pot and add the usual amount of water (double) this is usually one part rice to 2 parts of water, but adjust if you prefer your drier or wetter. *Pre soaking rice is not required.*

STEWED TOMATOES

Whole tomatoes 2 loaf of bread and cheese. Salt, paper, basal of other favorite's herbs.
Place each tomato in a custard cup and slice part way down into quarter. Sprinkle small pieces of bread and cheese on the top/ put custard cups inside a covered black pan. Bake about an hour.

WHOLE TOMATOES, BEETROOT ETC.

Wash potatoes and simply keep them in a covered or uncovered pan or put oil on the skins. Put little amount of water .Cooking time is usually 1-2 hours in sun. Make sure that you do not put very big sized potatoes. As the time required to bring them to boil increases substantially.

BEANS (DRIED)

Beans should be soaked overnight before solar cooking. A teaspoon of bicarbonate of soda may be added, if wished to aid softening. Soak the beans in plenty of water as they absorb a considerable amount overnight. Next day drain and rinse the beans and boil them in Tulsi. If dried beans are stale they won't cook successfully.

Add usual amount of water. Depending on type and condition of beans, some cook in 1 to 1- 2 hours or more add salt. Tomatoes, onions serve over rice cooked in separate pot or add rice to cook with the beans for 1 hour.

REFINED BEANS

Dried pinto beans	1 Cup	Water	3 cups
Chopped Onions	1	Ginger garlic paste	2 tablespoon.

Method :

Follow the instructions an in the previous recipe, but add 3 cups water to the beans. Bake for 2 hours. Drain (but save) the liquid; mash the beans, adding liquid to get the consistency you prefer. In a separate pan add oil and put spices to taste such as cumin, salt, ginger garlic paste, pepper and chopped onions, cook for 1-2 hours. Add this to the beans and bring to boil.

FRESH VEGETABLES

Add little amount water say 2 table spoon to green vegetables. Cook most green vegetables just 1-½ hours. If cooked longer they loose nice green color, though flavor is fine. Most root vegetables take more time.

LASAGNA

Spaghetti Sauce	1 Lt.	Ricotta Cheese	½ Kg
Shredded mozzarella Cheese	½ Kg	Parmesan Cheese	
Lasagna noodles	¼ Kg		

Method:

In the bottom of the pan pour 1/3 of the spaghetti sauce. Coat uncooked noodles with ricotta cheese and make a bottom layer in the pan. Add half the shredded mozzarella. Repeat to make a second layer. Top with remaining spaghetti sauce and Parmesan cheese. Cover and bake for 2 hours.
(No need to pre cooks the noodles)

BROCCOLI SOUP

Butter/Margarine	25 gm.	Onion	1 finely chopped and sauted.
Broccoli	450 gm.	Chicken stock	850 ml.
Salt	2 tsp.	Pepper	

Nutmeg	½ tsp.	Evaporated milk	1 can.

Method

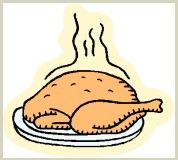
In the preheated Tulsi add broccoli, onion, butter, Add stock and seasoning. Cook for 2 hours. After cooking, liquidize or sieve and stir in the milk. Reheat for some time and serve hot.

BEAN SOUP

Mixed beans	2 cups	Onion	1 large chopped and sautéed
Dried parsley	3 tbsp	Garlic	4 cloves chopped and sautéed
Dash oregano		Tomatoes	2 chopped
Red pepper (optional)		green pepper	½, chopped
Ham stock	1 or 4 strips of bacon (smoked)		

Method:

Preheat Tulsi. Place ingredients in pot and cover to within 1 inch of top with soup stock or 3 cubes of beef in water. When done, add ½ lemon or 2 tablespoons vinegar. Cook for 4 hours or until done.



PORK CHOPS

Pork chops	2 fairly thick	Flour
Salt and pepper		

Method :

Coat chops with flour, salt and pepper. Sear on both sides. Place it in a pan, uncovered, and bake in preheated, Tulsi for an hour. Remove from oven and cover it with gravy; return to the cooker for about 45 minutes. Serve hot with rice.

CHICKEN CURRY

Broiler chicken	1 no.	Ginger	10 gms.
Coriander seeds	20 gm.	Onion	1 Nos.
Pepper corns	5 gm.	Oil	30 gms.
Garlic	10 gm	Red chilli	10 gms
Turmeric	5 gm.	Pepper	1 tsp.
Bay leaf	1 no.	Salt to taste.	

Method

- Clean the chicken joints thoroughly.
- Grind a fine paste of ginger and garlic. Add salt, and apply it on chicken, and set it aside.
- Roast and grind red chillies, peppercorns and coriander along with onion, turmeric and pepper
- Arrange the chicken in the container; add pepper bay leaf, oil and water to cover the chicken.
- Set the Tulsi in the sunlight.
- After 1-1/2 hours take it out, mix well and serve hot.

POT ROAST

A super one- pot meat with vegetables of your choice, such as potatoes, carrots, Onion, turnips, celery, Zucchini, and Mushrooms. Just put any size pot roast and vegetables together in a pot: add no water, cook for more that an hour. If you cook all day, meat gets very tender.

CHEESY POTATO CASSEROLE

Butter		Onions	1 cup chopped
Cream of chicken soup	1 can	Sour cream	
Frozen hash brown cubed potatoes, thawed	120-ounce bag		

Grated sharp cheddar cheese	8 ounces
Crushed potato chips for topping	

Method

Melt butter in small pan. Sauté onion until translucent. In a bowl, stir together sour cream, chicken soup and onions. Mix well. Add potatoes, salt, pepper and cheese. Stir until all ingredients are well blended. Pour into un-greased dark-colored dish. Sprinkle potato chips on top. Cook for 2 hours in Tulsi.

ROASTED CHICKEN

Chicken	Margarine
Salt and pepper	

Method

Rub chicken with margarine, salt and pepper. Cook in covered baking dish. Chicken is done

SWEETS

CARAMEL CUSTARD

Milk	250 ml	Eggs	2 nos.
Sugar	50 gm	Grated nutmeg	a pinch

Method

- Dissolve sugar for caramel in water in a smaller container get it browned.
- Boil the milk and pour over beaten eggs and sugar syrup.
- Strain into the prepared container. Sprinkle over with grated nutmeg.
- Set the solar cooker in the sunlight.
- After one-hour remove, cool for few minutes and turn on to dish. Serve either hot or cold.

BREAD PUDDING

Bread	115 gm.	Milk	225 ml
Sugar	60 gm.	Eggs	2 nos.
Sultanas	30 gm	Grated nutmeg	a pinch
Cashew nuts	30gm	Lemon rings	a little.

Method

- Cut the bread loaf into small pieces.
- Boil the milk and pour it over bread. In addition, set aside for half an hour.
- Beat eggs well, add sugar, and grate lime ring. Nutmeg and pour over bread.
- Add sultanas, cashew nut and mix well.
- Pour into greased Tulsi container
- Adjust the Tulsi in the sunlight.
- After an hour take it out and serve it with custard.

PLUM PUDDING

Flour	65 gms.	Bread crumbs	55 gms.
Margarine/ butter	100 gms.	Brown sugar	115 gms.
Eggs	3 nos.	Sultanas	55 gms.
Mixed peel	55 gms.		

Method

- Put flour and bread crumbs and all other ingredients, mix well.
- Put into well greased solar cooker container
- Pre heat solar cooker in sunlight or with power in case of hybrid solar cooker.
- After one hour take it out and serve with custard sauce.

CHOCOLATE CAKE

Flour	115 gm.	Powdered sugar	115 gm.
Baking powder	¼ tsp.	Butter	75 gm.
Eggs	2 nos.	Milk	30 ml
Cocoa powder	30 gm.		

Method

- Sieve flour, baking powder, and cocoa.
- Stir Cream butter and sugar till light and fluffy.
- Add eggs one at a time followed by one-tablespoon flour.
- Fold in the rest of the flour
- Add milk to form a dropping consistency.
- Grease and line the cooker with greaseproof paper.
- Put the mixture in to the container and place it in pre heated Tulsi.
- Cook it for one hour or so.
- Allow cooling in the same container turning out and serve.

FAMILY FRUIT CAKE

Self-raising flour (or plain flour)	200g	Mixed spices	1 level tsp.
Baking powder	2 level tsp	Cinnamon	½ level tsp.
Butter or margarine	75-100 gm	Sugar	75-100 gm
Currants	100 gm	Milk	125 ml.
Sultanas	100 gm	Mixed peel	25 gm.
Egg	1		

Method

- Sieve the flour and put baking powder with the spice and cinnamon.
- Add butter or margarine until the mixture looks like fine breadcrumbs.
- Add sugar, dried fruit, and peel.
- Mix egg and milk to form a soft consistency, i.e., so the mixture drops easily from a knife.
- Put into the greased and floured loaf tin, making the mixture quite level on top.
- Bake for an hour or so.

Test the cake before removing from the tin. Ensure the cake has shrunk away from the sides of the tin, and when a fine skewer is inserted into the cake, it should come out quite clean. Slice and serve. If any mixture is left and becomes cold spread with a little butter and use as bread

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SPONGE CAKE

Eggs	2	Castor sugar	50-75 gm
Flour (with baking powder or use self-raising flour)	50 gm		
Hot water	1 dessertspoon		

Coating:

Butter
Flour
Castor sugar

Method

- Mix eggs and sugar into a large mixing bowl, and whisk until the mixture is thick and creamy (you see the trail of the whisk). If done over hot water continue, beating until the mixture cools again.
- Sieve the flour at least once.
- Fold gently into the egg mixture with a metal spoon. Lastly, fold in the water.
- Grease the container, then coat with flour or an equal mixture of flour and castor sugar.
- Spoon the mixture carefully into the container.
- Bake it in Tulsi for an hour or so.
- Test cake before removing from Tulsi Press with finger, if no impression remains the cake is cooked.
- Turn the cake out carefully, allowing it to cool in the tin. Split and fill with jam or cream.

BANANA BREAD

Flour	2 cups	Baking soda	1 teaspoon
Sugar	1½ cups	Buttermilk	½ cup
Eggs	2	Bananas	2 (mashed or blended)
Walnuts	1 cup chopped		

Method

Mix all ingredients well. Pour into greased and floured loaf pan. Bake in the solar cooker; expose it for 1-½ hours or until toothpick inserted in center.

CORN BREAD

Jiffy Corn Bread Mix	1 package	Egg	1
Green onion	1 chopped	Buttermilk	1

Method

Mix bread mix egg and green onion with enough buttermilk to get the right consistency. Put the mixture in preheated ***Tulsi*** until done.

WHITE BREAD TIN LOAF

Cooking time 30-40 minutes with electrical backup and 1-2 hours in Solar.

Yeast liquid

Sugar	1 tsp.	Warm water	250 ml.
Fresh yeast	15 gm		

(If fresh yeast is unavailable use 1 level dessertspoon dried yeast)

Dry ingredients

Lard or margarine	15 gm.	Flour	400 gm.
Salt	2 level tsp.		

Method

- Dissolve the sugar in the warm water. With fresh yeast add liquid and use immediately. Sprinkle dried yeast on top of liquid- leave for 10 minutes or until mixture becomes frothy.
- Rub the lard into flour and salt, sieved into a warm bowl. (All yeast utensils need to be warm.)
- Add yeast liquid and knead well.
- Cover the bowl with a cloth or put dough into a greased, large polythene bag.
- Allow rising until double its size; this takes about 45-60 minutes in a warm place –2 hours in a cool room.
- Re-knead dough; continue kneading until dough springs back when pressed with a floured finger.
- To shape loaf press to oblong, fold in three and put in a greased warm container.
- Prove again until raised..
- Bake in Tulsi.

To test: Knock bottom of loaf- it should sound hollow.
Note: The liquid in yeast cooking should not exceed (38^{o}C). Preferably use strong flour – a little more may be needed as makes of flour vary for liquid they absorb.

COB LOAF

Cooking time 40-90 minutes with electrical back up alone and 1-2 hours from solar (depending upon solar intensity)

Yeast liquid:

Sugar	1 tsp.	Warm water	250 ml.

15 gm fresh yeast or 1 level dessertspoon dried yeast

Dry ingredients:

Lard or margarine	15 gm	Flour	400 gm
Salt	2 level tsp.		

Coating: Flour

Method

- Prepare the yeast liquid as in preceding recipe or cream the yeast and sugar. Add the warm liquid, sprinkle the top with flour, and leave in a warm place until the sponge breaks through.
- Rub the lard into flour and salt, sieved into a warm bowl. *(All yeast utensils need to be warm.)*
- Add yeast, liquid knead well.
- Cover bowl with a cloth or put dough into a greased, large polythene bag.
- Allow rising until double its size; this takes about 45-60 minutes in a warm place –2 hours in a cool room. Re-knead dough; continue kneading until dough springs back when pressed with a floured finger.
- To shape the cob loaf, mould dough into a round ball, flatten slightly and cut top of
- Loaf with a sharp knife.
- Dredge with a little extra flour, put on to a lightly floured tray to prove. Cover with greased foil, if desired, and leave until double in size.
- Bake until the given time.

To test: Knock bottom of loaf- it should sound hollow. Store in an airtight tin or bread bin.

Note: The liquid in yeast cooking should not exceed (38^{o}C). Preferably use strong flour – a little more may be needed as makes of flour vary for liquid they absorb.

PORRIDGE (NAMIBIAN)

Millet-flour (Mahango)	1 part	Water	2 part

Method

Put water and flour in a container and boil the porridge for one or two hours in Tulsi

CABBAGE CASSEROLE (FOR 10 PERSONS)

Cabbage	1 kg	Water	5 dl
Rice	3 dl	Salt	according to taste
Ground beef	300 gm	Onion	1-2 chopped
White pepper powder	0,5 teaspoon		

Method:

In the bottom of the pan, place 1/3 of chopped cabbage and a little salt. Mix together ground meat, rice, chopped onion and spices. Spread this mixture over the cabbage. Then cover the mixture with 1/3 of chopped cabbage and salt. Spread the rest of the mixture over the cabbage and top with remaining cabbage. Pour over water in casserole. Cover and bake for 2 hours in Tulsi

MEAT-VEGETABLE CASSEROLE (FOR 5-6 PERSONS)

Meat	500 g	Tomatoes	2
Onion	2	Cooking oil	1 dl
Salt		Black pepper	

Method:

Put the meat cubes, chopped onions, chopped tomatoes and all other ingredients in container. Bake in Tulsi 1 to 2 hours. Season as you like

FISH-VEGETABLE CASSEROLE (FOR 5-6 PERSONS)

Tomatoes	4 large	Fish	500 g
Potatoes	4-5	Salt	
White pepper		Lemon juice	(half lemon)
Onion	1	Peas	1-2 dl
Carrots	2		

Method:

Peel potatoes, carrots and onion. Cut potatoes into halves, carrots into small cubes and chop onion, and peas and boil them in a pot. In other container, bake the fish, mix all ingredients cook for 15 min.

MACARONI-MEAT CASSEROLE (FOR 6-8 PERSONS)

Macaroni	3 dl	White pepper	
Ground meat	250 g	Salt	to taste
Onion	1	Milk	5 dl
Eggs	2		

Method

First boil macaroni in water (1 litre) in Tulsi for about half an hour. Pour off water and put ground meat, chopped onion, spices, mixed milk and eggs into the pot and bake casserole for about 2 hours in Tulsi. The casserole will be ready when it has acquired a firm texture.

WHITE BEANS IN TOMATO SAUCE (FOR 6-8 PERSONS)

White beans	5 dl	Tomato purée	1 tablespoon
Tomatoes	4 large	Onions	2
Butter	1-3 tablespoon	Salt	1 teaspoon
or margarine		Basil	1 teaspoon

Lemon juice Parsley

Method

Boil the beans in one container for 2 hours. In another container put chopped onions in margarine. Add mashed tomatoes, purée , salt, and herbs and simmer in the solar box for about half an hour. Add cooked beans. Let the mixture boil and serve with grilled meat or sausages.

INDIAN SNACKS AND MEAL WITH TULSI SOLAR AND HYBRID SOLAR OVEN

VEGETABLES AND RICE

To make rice into great vegetarian meal put vegetables of your choice (onion, squash, celery, carrot. Peas etc.) with rice and water. If you use FRESH vegetables, cooking may take only 45 minutes to one hour in bright daylight.

CHICKEN BIRYANI

Just put raw cut chicken pieces on top to cook along with the rice salt to taste and other condiments and spices and cook one hour, Add about ¼ less water to the rice, as the juices from the meat will replace it.

FRUIT, SUCH AS APPLES, PEACHES, BANANAS

Take cups of several peaches, bananas, apples or mixture (remove peaches, apple cores) into a pan. Sprinkle sugar and cinnamon. Bake for an hour, or more if desired. Optional meringue topping: Beat three eggs whites until stiff, adding one teaspoon of vanilla and ¾ cup of sugar while beating. Spread on top of cooked fruit. Return to solar box and bake uncovered 1/2 hour. Serve hot or cold.

BEVERAGES

Tea hot water can be ready most of the day. Mild can be pasteurized during sunny hours during non-sunny hours you can use electrical backup.

SAUCES/GRAVY (WITH FLOUR OR STARCH)

Heat juices and flour separately with cooking oil in the flour. Then combine and stir. It will be ready quickly. During non-sunny hours, you can use electrical back up or solar and electricity both.

ROASTING NUTS

Bake in uncovered pan. almonds- 1/2 hour, peanut-1 hour.

SQUASH

Winter squash (Huber banana) cooks fast in large chunk in a covered pot. A bit of butter and brown sugar add flavor.

BOILED EGG

Cook in shells without water 1 hour. Little longer cooking whites tend to “tan.

COCONUT RICE

Basmati rice	200gm.	Coconut	1
Ghee	50 gm.	Onion	1 large, sliced
Pepper		Water	400g
Salt to taste		Bay leaf	1
Cinnamon	1” pc.	Cloves	4

Method :

- Clean, wash and soak rice for half an hour.
- Scrap and grind coconut . Squeeze out the milk and keep aside.
- In ghee sauté onion, bay leaf cinnamon and cloves.
- Add rice and add coconut milk to cook the rice. Add Salt

BOILED RICE MASALA DAL

Rice	200 gm.	Tur-dal	100 gm.
Green chilies	5 gm.	Green coriander	a few springs
Turmeric	a pinch	Coconut (grated)	25 gm.
Cumin (Jeera	a pinch	Tomatoes (chopped)	100 gm.
Ghee (oil)	15 gm.	Salt to taste.	

Method

- Grind together coconut, turmeric, cumin, and green chilies to a fine paste..
- Add the ground masala, tomatoes, ghee and green coriander.
- Put this masala in the main solar cooker container.
- Wash and soak Dal
- Add enough water to cover the mixture.
- Wash and soak rice.
- Add double the quantity of water as to rice. Add salt to taste..
- Place this container in Tulsi and cover with the lid
- Adjust the solar cooker in the sunlight and keep it for one hour.
- After one hour take out the container, add enough salt to the dal, mix it well, and serve hot with boiled rice.

MOONGDAL KITCHEDI

Pulao Rice	200 gms.	Moongdal	100 gms.
Cinnamon (dalchini)	1 small pc.	Clove	3 nos.
Ghee (oil)	30 gms.	Coriander leaves	10 gms.
Turmeric	a pinch.	Salt to taste	

Method

1. Soak Rice and Dal for 2 hours
2. Put the rice, dal, turmeric, cinnamon, cloves and ghee into the container.
3. Add double the quantity of water to rice. Salt to taste and cover with lid.
4. Adjust the solar cooker in the sunlight and keep it for one hour.
5. After one hour take it out from the container and serve hot, garnished with chopped coriander leaves

PALAK PANEER

Spinach	50 gm.	Tomatoes	100 gm.
Onion	1 No.	Chilli powder	¼ tbsp.
Paneer	200 gm.	Ginger garlic paste	1 tsp.
Oil	100 gm.	Salt to taste.	
Cummin		Corriander	

Method

- Chop and wash the spinach add little water.
- In another container put oil tomato puree, Onion grinded into a fine paste and ginger garlic paste. Add spices and condiments.
- Put both the containers in Tulsi and boil them for an hour
- After spinach is boiled, grind the spinach to fine paste.
- Cut Paneer into small one inch cubes.
- Add paneer and all the masala to the spinach and cook for half an hour or till done.
- Serve hot, garnish with green coriander and garam masala

VEGETABLE CURRY

Potato	1	Turmeric	1 tsp.
Chilli powders	1 tbsp.	Carrot	1
Curd	½ liters.	Green peas	50 gms.
Beans	50 gms.	Garam masala	1 tsp.
French bean	50 gms.	Water	½ liter
Salt to taste			

Method

- Cut all vegetables into small pieces
- Make a paste out of mixing curd and beans with water.
- Mix turmeric powder, chilli powders, and salt to form a paste.
- Put the mixture in the container and add the water. Close the lid of the container and place it in Tulsi.
- Leave the cooker for an hour, or 1-1/2 hour. Sprinkle garam masala and Ghee.

IDLI

Rice	200 gms.	Urad dal	100 gms.
Fenugreek seeds	little	Salt to taste	

Method

- Wash and soak rice for about 30 minutes.
- Grind coarsely in the grinder
- Soak urad dal for one hour and grind with methi seeds until it is light and frothy
- Mix ground rice, dal, and a little water and keeps it overnight.
- Add a pinch of salt and steam in the solar cooker for 40 minutes
- Serve hot with coconut chutney.

Note- To steam idle. Cook in smaller container along with sambhar in the large container or put idlies in smaller cups or perforated vessel, which fits snugly into the pots

SAMBHAR

Tur dal (arhar dal)	50 gms.	Red chillies	5 gms
Turmeric	pinch	Coconut	30 gms.
Asafetida (heeng)	¼ tsp.	Brinjals	30 gms
Coriander	5 gms.	Methi seed	a pinch
Cumin	a pinch	Tamarind	20 gms.

Onions	one	Drumsticks	1 No.
Salt to taste.			

Method

- Wash and soak te dals for an hour.
- Keep it in Tulsi adding enough water to cover and adjust the cooker in the sunlight and keep it for an hour.
- Roast and grind coconut, coriander seeds, red chillies, methi seeds, turmeric, heeng and jeera.
- Cut the vegetables into pieces.
- Put ground masala and vegetables into the dal. Add enough water to cover and keep it again for cooking.
- After 50 minutes add tamarind pulp, and salt to taste. Serve hot.

FISH CURRY

Fish	500 gm.	Chillies red	5 gm.
Chillies green	5 Nos.	Coconut	55 gm.
Garlic	few flakes	Tamarind (imli)	25 gm.
Coriander	3 tbsp.	Ginger	1 pc.
Turmeric	30 ml.	Salt to taste.	

Method

- Clean and wash fish and cut it into pieces.
- Grind together coriander, red chilies, ginger, garlic, coconut, green chillies, and turmeric.
- Add salt and tamarinds pulp to the masala and apply on the fish.
- Arrange the fish in Tulsi, add enough water to cover the fish and adjust the Tulsi in sunlight.
- Bake it for an hour or so , or till it is cooked.
- Serve hot.

EGG MASALA

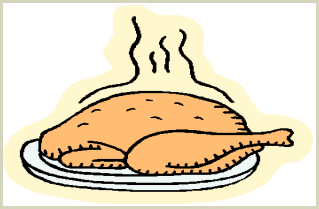
Eggs	4 nos.	Onions	I
Oil	30 gm	Pepper corn	few
Coriander seeds	25gm	Turmeric	½ tsp.

Red chilies	4 pcs.	Gram masala	½ tsp
Ginger	10 gm.	Coriander leaves	¼ bunch.
Vinegar (sirka)	2 tsp.	Water	400 ml.

Method

- Chop onions, roast and grind coriander, paper corns, turmeric, red chilies ginger and garam masala along with onions.
- Add vinegar, Water, oil, chopped coriander leaves, and salt to taste.
- Put this masala into the solar cooker container and break the eggs into the masala.
- Adjust Tulsi in the sunlight and keep it for 45 minutes.
- After 45 minutes open the container and serve the egg curry, hot.

VARIATIONS: Instead of breaking the eggs directly into the masala, put in whole eggs let them cook in the masala. After 45 minutes remove the egg, shell, cut into halves and put into masala.



MUTTON KORMA

Mutton	500 gm.	Dry coconut	40 gm.
Onions	100 gm.	Ginger	5 gm.
Garlic	few pods	Red chilies	5 gm.
Curd	125-gm.	Coriander seeds	15 gm.
Poppy seeds	10 gm.	Pepper corns	2 gm.
Garam masala	5 gm.	Ghee	50 gm.
Salt to taste.			

Method

- Roast and grind coconut, red chilies, coriander, poppy seeds, peppercorns, and garam masala along with onions, ginger and garlic.

- Wash and cut mutton and soak it in curd for half an hour.
- Put mutton, ground masala, salt and ghee into Tulsi add water to the mutton depending on the consistency required.
- Set Tulsi in the sunlight
- After 1 1/2 hour , when the mutton is cooked serve hot in winter cook for 2 1/2 hour

MUTTON DHANSAK

Mutton	200 gm.	Tur dal	20 gm
Masur dal	10 gm	Moong dal	10 gm.
Val dal	5 gm.	Onions	25 gm.
Red pumpkin	50 gm	Methi saag	20 gm.
Potatoes	50 gm.	Mint leaves	1 sprig
Dhania hara	10 gm	Chilies green	2 gm.
Chili powder	2 g	Jeera powder	1 pinch
Dry coconut	10 g.	Ginger	2 gm.
Garlic	1 pod.	Pepper	few
Turmeric	1 pinch	Tomatoes	10 gm.
Brinjal	30 g	Sweet potatoes	10 gm
Jeera Powder	½ tsp	Rice	200 gm.
Cinnemon	1 pc.	Cardamom	2 nos.
Cloves	4 nos.	Bay leaf	2 nos.
Salt to taste			

Method

- Wash and cut mutton into pieces. Chop the vegetables and onions.
- Pick and wash all the dals, chop corinder leaves, mint leaves, and green chilies.
- Roast and grind red chilies, jeera along with ginger, garlic, green chilies, and onion to fine paste.
- In main container put mutton, ground masala, chopped green leaves, pepper, turmeric, and tomatoes and add water.
- Pick and wash rice, add double the quantity of water. And keep it in other container.
- Add cinnamon, cardamom, cloves, and bay leaf and cover the container.
- Adjust Tulsi in the sunlight and keep it for 1½ hours.
- After 1.1/2 hours take out container, add enough salt to the dhansak and mix it well.
- Serve hot with rice.

BROCCOLI CASSEROLE

Eggs	3	Flour	3 Tablespoon
Salt to taste		Cottage cheese	8 oz
Cheddar cheese	1 cup grated	Chopped broccoli	2 packs

Method

In a container, mix together eggs, cottage cheese, grated cheese, flour and salt. Thaw broccoli, drain, and mix into egg mixture. Cover and bake 1 hour.

BAKED VEGETABLES

Cauliflower	100 gm.	Tomatoes	100 gm.
Potatoes	100 gm.	Garam masala	1 tsp
Carrots	75 gm.	Shelled Peas	100 gm.
Salt to taste.		Oil	2 tsp.
Green chilli	2 - 3		

Method

- Wash & cut all the vegetables. Put them in Tulsi and boil them for 45 min.

White Sauce:

- Boil 1 cup flour maida, half cup milk and 1 cup water, and cheese. Stir vigorously into a smooth paste. Make sure it does not form into lumps. Pour this mixture over the vegetables. Grate a thick layer of cheese over it. Bake in the cooker till the cheese turns brown. Sprinkle garam masala and serve hot

PANEER TIKKA

Paneer	200 gm.	Cardamom	4-5

Onion	3 nos.	Cloves	3-4
Tomatoes	100 gm.	Sugar	1/2 tsp.
Ginger	1 Pc.	Mawa	50 gms.
Garlic	3-4 pods	Oil	2 tsp.
Salt to taste.			

Method

- Grind onion, ginger, garlic, and green chilies to a smooth paste.
- In a container, add all the spices, onion garlic paste, tomato puree, mava, little oil and salt .
- Cook for 2 hours in the sun or till the mixture turns golden brown.
- Cut paneer into pieces. and add it to the mixture also add sugar and water and cook for half and hour .

VEGETABLE ROLL

Potatoes	½ Kg	Bread crumbs	
Peas Shelled	100 gms.	Green chilies	3 - 4
Carrots	½ cup grated	Dhania(coriander)	25 gm.
Cauliflower	1 small	Refined oil	2 Tsp.
French Beans	½ cup	Grated Cheese	1 cup
Onion	½ cup	Red chilli powder.	½ tsp.
Salt to taste			

Method

Boil and mash potatoes with a little salt in the refined oil. Add onion, chilies, dhania, salt and red chilly powder mix well. Add peas & other vegetables and cook in the solar cooker till tender. Spread a polythene and evenly put breadcrumbs on it. Put potatoes mix on these crumbs and roll them add cooked vegetables and paneer on it evenly. Now roll on an aluminum foil. Cook in Tulsi for 1 ½ hours in the sun.

PUNJABI DAL MAKHANI

Urad Dal Whole	200 gm.	Green Chilies	4
Rajma	25 gm	Green coriander	1 bunch
Tomatoes	2	Cumin seeds	1 tsp.
Asafoetida	a pinch	Ginger	1” pc.
Butter/cream	50 gm.	Ghee/Oil	2 Tsp
Onion	1 Big	Chili pwd.	½ tsp
Garlic	2-3 pods	Dhania pwd.	1 tsp.
Turmeric Pwd.	½ tsp.	Milk	
Salt to taste			

Method

- Presoak Dal and Rajma overnight.
- Boil them in the morning for around 2 hours.
- Make a paste of ginger garlic onion and green chilies.
- To this paste add turmeric powder,dhania, cumin seeds, asafetida, chilly powder, asafetida, salt, 1 tsp. ghee and onions.
- Cook in Tulsi till it turns golden brown
- Add little milk and cook for 15 min .
- Add this mixture to the main dals.
- Add Butter /cream
- Cook for half an hour.
- Garnish with garam masala and Green coriander.
- Serve hot.

SWEETS & JAMS

BAKED COCONUT PUDDING

Bread	60 gm.	Coconut	60 gm.
Milk	300 ml.	Sugar	75 gm.
Lemon rings	a little	Margarine/ butter	30 gm.
Eggs	2 nos.		

Method

- Heat the milk and margarine together.
- Pour over the breadcrumbs.
- Add grated coconut. Lemon ring. In addition, sugar.
- Beat the eggs, add to mixture, and mix it well.
- Allow to stand for half and hour
- Put into a greased solar cooker container.
- Pre heat Tulsi in sun or with power in case of hybrid cooker.
- After one hour take it out and serve hot.

JAMS AND GOOSEBERRY JAM

Gooseberry (Amla)	1 kg.	Sugar	1 Kg.
Salt	1 tsp.	Turmeric powders	1 tsp.
Nutmeg powders	1 tsp.	Ginger	50 gms.

The medicinal and nutritional values of the Indian Gooseberry (Amla) has been known through the ages, The fruit has 15 times more vitamin C, than lemon and 20 times more vitamin than orange beside out of basic six 'RAS' Amla has five RAS According to Ayurveda that is why is known as 'Amrit phal' super medicine or NECTAR. The fruit eliminates body fats, stimulates, digestion, imparts strength to the body and bones, restores vitality, purifies blood and keep the skin healthy.

Method

Wash fruit and Solar bake for an hour .Now crush a rough pulp and remove the stone. Add sugar and other ingredients, as per choice/ requirement. Again solar cook for one hour. Now your yam is ready, pour it **into a bottle and screw tightly; this jam can be kept for years without spoilage.**

NOTE: - Do not mix sugar in starting or before gooseberry is baked.

PINEAPPLE JAM

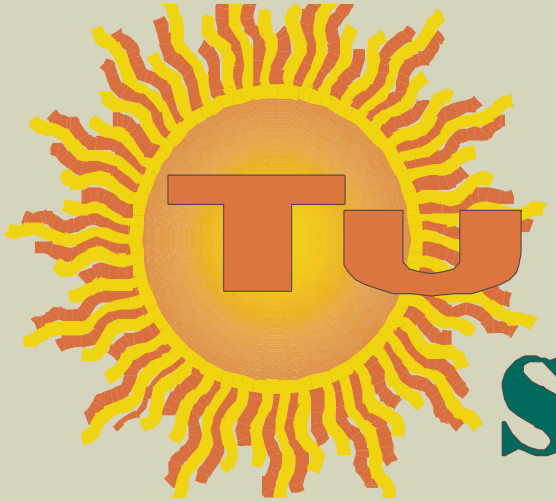
Peel and dice yams. Add pineapple chunks and a bit of juice. Bake in covered pot about an hour.

Rohitas Electronics is world's only manufacturer of Tulsi hybrid (Electrical back up) solar Ovens with universal repute and recognition.

NEW LOOK TULSI HYBRID SOLAR OVEN

ALL ELECTRICAL COMPONENTS IN TULSI HYBRID SOLAR OVEN ARE U / L (Underwriters' laboratory. USA) or CE APPROVED. THE COOKING POTS ARE APPROVED BY US FOOD AND DRUG ADMINISTRATION REGN. NO. # 11460627156.

Tulsi Hybrid Solar Oven on display at US Capital Building lawn.



SOLAR OVEN

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